



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**PATENT**

Re: Attorney Docket No. Bailey 6-11

In re application of: James A. Bailey and Robert Kuo-Wei Chen

Serial No.: 10/755,937

Group Art Unit: 2816

Filed: 01/13/04

Examiner: Dinh Thanh Le

Matter No.: 992.1114

Phone No.: 571-272-1745

For: Tuning Filters Having Transconductor Cells

**DECLARATION UNDER 37 CFR 1.132**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

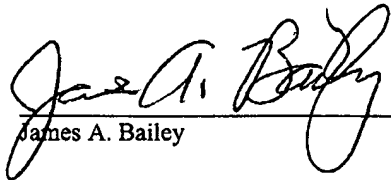
Sir:

1. I, James A. Bailey, reside at 728 Reidhead Avenue, Snowflake, Arizona 85937. I am an inventor of the subject matter of the current patent application, I am familiar with the prosecution of this application, and I have read U.S. Patent No. 5,625,317 ("Deveirman").
2. This Declaration is being submitted to show that Deveirman does not teach the configuration of a transconductance (gm) cell to have substantially zero transconductance.
3. Deveirman mentions two different techniques for configuring a biquad structure to oscillate.
4. Deveirman's first technique involves altering the internal feedback of the biquad structure by reversing the polarity of one or more of the feedback connections in the biquad structure.
5. Referring to Deveirman's Fig. 3, if transconductance amplifier 306 has a non-zero transconductance (gm2), then reversing the polarity of the feedback connections of transconductance amplifier 306 would result in transconductance amplifier 306 providing the biquad structure with a non-zero transconductance of opposite polarity (i.e., -gm2).
6. Reversing the polarity of the feedback connections of transconductance amplifier 306 would not force a non-zero value for transconductance gm2 to be zero.

7. Deveirman's second technique for configuring a biquad structure to oscillate involves the addition of a transconductance amplifier having a non-zero transconductance that negates the non-zero transconductance of another transconductance amplifier in the biquad structure.
8. Referring to Deveirman's Fig. 6, Deveirman teaches the addition of transconductance amplifier 600 having a non-zero transconductance  $g_{m, osc}$  that negates the non-zero transconductance  $g_{m2}$  of transconductance amplifier 306.
9. As represented in Fig. 6, adding transconductance amplifier 600 with non-zero transconductance  $g_{m, osc}$  to the biquad structure shown in Fig. 3 would not force a non-zero value for transconductance  $g_{m2}$  to be zero.

The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

September 26, 2005  
Date

  
James A. Bailey